

**Motion Control of a Transporter**

**Abstract**

5       A transporter for transporting a subject over a surface that may be irregular. The  
transporter includes a support platform for supporting a load, the loaded support platform  
defining fore-aft and lateral planes and characterized by a load distribution. A plurality of  
ground contacting elements are coupled to the support platform such that the transporter  
is statically stable with respect to tipping in the fore-aft plane. At least one of the  
plurality of ground contacting elements is driven by a motorized drive arrangement. A  
10   sensor module generates a signal indicative of the load distribution. Based at least on the  
load distribution, a controller commands the motorized drive arrangement.